

## RESPONSE

Examiner rejected the previous amendment as being nonresponsive because it introduced the feature of the fluorescent trail. Applicant has reinstated claim 16 and cancelled claim 29 without prejudice or disclaimer. Claim 16 has been amended to show that the claims 30-52 are related to the invention originally claimed. The feature of the fluorescent trail has been removed to specifically address Examiner's concerns. Support for these amendments can be found at, for example, paragraphs 0015 and 0019 of the specification, and Figure 2.

### I. Remarks Under 35 U.S.C. §102(b)

Examiner has cited Yeung et al. (U.S. Pat. No. 5,324,401). The PTO has the burden of establishing that a reference teaches each and every feature of a claim in order for that reference to anticipate the claim. MPEP 2131.

Yeung et al. does not teach each and every feature of the pending claims, including not teaching positioning an excitation beam of light to increase the spatial resolution between the fluorescent image from a channel plate and the fluorescence image from a sample.

Yeung et al. teaches positioning an optical fiber so that the "angle of incident light on the surface of the capillary 20 can be varied as long as care is taken to reduce stray laser light from interfering with the fluorescent light as detected by the camera." (Col. 8, lines 56-59). Yeung et al. teaches positioning an excitation beam of light to reduce interference with the camera. Therefore, the term "angle of incidence" refers to angle relative to the camera. Yeung et al. teaches positioning the optical fiber coaxially or orthogonally to the capillary (Col. 8, lines 28-38). Such positioning eliminates fluorescence and scattering by the capillary wall (Col. 12, lines 30-33). Hence, Yeung et al. does not teach spatial resolution between the fluorescence image from a channel plate and the fluorescence image from a sample.

Examiner has cited Van Gelder et al. (U.S. Pat. No. 5,424,841). The PTO has the burden of establishing that a reference teaches each and every feature of a claim in order for that reference to anticipate the claim. MPEP 2131.

Van Gelder et al. does not teach each and every feature of the pending claims, including not teaching positioning an excitation beam of light to increase the spatial resolution between the fluorescence image from a channel plate and the fluorescence image from a sample.

Van Gelder et al. teaches positioning an incident excitation beam “off normal relative to surface 60 and fiberoptic bundle 40 is located within the area defined by the acute angle of incidence in order to minimize collection of reflected excitation light 63.” (Col. 5, lines 10-13). Further Van Gelder et al. teaches positioning the light collecting surface for “selective rejection of back-scattered excitation light 66 by optical fibers 58 without attenuation of fluorescent emission 68 from sample 12.” Van Gelder et al. teaches positioning an excitation beam of light and a light collecting surface to reduce reflection and scattering from the surface 60. Van Gelder et al. teaches that the positioning will not attenuate the fluorescent emission from the sample. Such positioning eliminates fluorescence and scattering by the surface. Hence, Van Gelder et al. does not teach spatial resolution between the fluorescence image from a channel plate and the fluorescence image from a sample.

## II. Remarks Under 35 U.S.C. §103(a)

The PTO has the burden of establishing a *prima facie* case of obviousness. MPEP 2142.

“To establish a *prima facie* case of obviousness, three basic criteria must be met.

First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings.

Second, there must be a reasonable expectation of success.

Finally, the prior art reference (or references when combines) must teach or suggest all the claim limitations.

The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on the applicant’s disclosure.” (indentation and underline added for emphasis) MPEP 2142.

Neither reference nor a combination teach or suggest all the claim limitations. There is no motivation to modify the references since they do not have to deal with the problem of fluorescence by capillary or surface. Finally, there can be no reasonable expectation of success since neither reference has taught a solution to the problem.

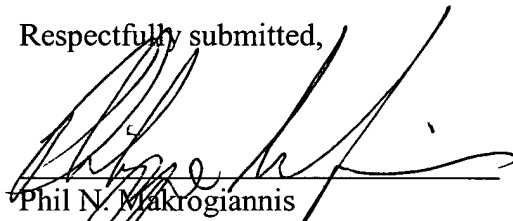
III. Fee Authorization

Should any extension of time and/or fee be necessary for timely submission of this paper, such extension of time is hereby requested, and the Commissioner is hereby authorized to charge **Deposit Account No. 01-2213**. Any deficiency or overpayment should be charged or credited to this deposit account.

Date: \_\_\_\_\_

8/20/03

Respectfully submitted,



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